

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS:	Valo et al.	CONF. No.:	8581
SERIAL NO.:	09/397,300	ART UNIT:	2617
FILING DATE:	09/15/1999	EXAMINER:	Lee, J. Y.
TITLE:	METHOD AND APPARATUS FOR DYNAMIC RADIO RESOURCE CONTROLLING		
ATTORNEY DOCKET NO.:	297-008869-US (PAR)		

Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

APPELLANTS' REPLY BRIEF

(37 C.F.R. §41.41)

This is response to the Examiner's Answer mailed 29 September 2006.

I. STATUS OF THE CLAIMS

Claims 1-18 are pending in the application.

Claims 1-11 have been allowed.

Claims 12-18 have been finally rejected.

The claims on appeal are 12-18.

II. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. The first rejection to be reviewed on appeal is the Examiner's rejection of claims 12 and 15 under 35 USC 112, second paragraph.
2. The second rejection to be reviewed on appeal is the Examiner's rejection of claims 12, 15, and 17 under 35 USC 102(e) as being anticipated by Snowden et al. (US 5,974,032, "Snowden").
3. The third rejection to be reviewed on appeal is the Examiner's rejection of claims 13, 14, 16 and 18 under 35 USC 103 (a) as being unpatentable over the combination of Snowden and Suzuki (US 6,044,067).

III. ARGUMENT

Rejection of claims 12 and 15 under 35 USC 112, second paragraph

On pages 5 and 6 of the Final Office Action dated 12 November 2003, the Examiner suggests amending the phrase "in data terminal equipment" in claims 12 and 15 to -- a data terminal equipment-- to distinguish data terminal equipment from "network element" and "mobile terminal." Applicants submitted such an amendment on 12 January 2004 and the Advisory Action mailed on 27 January 2004 indicated that the amendment would be entered for purposes of appeal.

Claim 12 is directed to a method of communication between a network element and a mobile terminal in a communication network. The method recites, among other things, exchanging a plurality of data units between the network element and the mobile terminal, wherein at least one data unit includes a status bit indicating that flow control in a data terminal equipment used to transmit the data unit is active or inactive.

Claim 15 is directed to a communication network, including a mobile terminal, a network element for exchanging a plurality of data units with the mobile terminal, and circuitry for providing at least one data unit that includes a status bit indicating that flow control in a data terminal equipment used to transmit the data unit is active or inactive.

Previous rejections have stated that there is insufficient antecedent basis for the phrase "in data terminal equipment." The present Examiner's Answer states that claims 12 and 15 recite a network element and a mobile terminal and then later recite "flow control in data terminal equipment. The Examiner's Answer goes on to state that it is not clear what equipment is being referred to by the expression "in data terminal equipment."

Applicants reiterate that the phrase has been amended to recite -- in a a data terminal equipment -- " as suggested by the Examiner.

Figure 4 of the specification shows the functional elements of a data transfer process in a GSM system, including the data terminal equipment shown as a block designated "DTE." Page 8, line 26 through page 9, line 5, also describes how flow control is implemented in the data terminal equipment and further describes a flow control indication that signifies when flow control in the data terminal equipment is active or not.

Clearly, the equipment referred to by "in data terminal equipment" is what the phrase states: data terminal equipment.

A claim is not *per se* indefinite if the body of the claim recites additional elements which do not appear in the preamble.

The mere fact that the body of a claim recites additional elements which do not appear in the claim's preamble does not render the claim indefinite under 35 USC 112, second paragraph. The claim at issue apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 USC 112, paragraph 2. (MPEP 2173.05(e) referring to *In re Larsen*, No. 01-1092 (Fed. Cir. May 9, 2001, unpublished)).

The test for definiteness under 35 U.S.C. 112, second paragraph is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." MPEP 2173.02 states:

In reviewing a claim for compliance with 35 U.S.C. 112, second paragraph, the examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112, second paragraph, by providing clear warning to others as to what constitutes infringement of the patent. See, e.g., *Solomon v. Kimberly-Clark Corp.*, 216 F.3d 1372, 1379, 55 USPQ2d 1279, 1283 (Fed. Cir. 2000). See also *In re Larsen*, No. 01-1092 (Fed. Cir. May 9, 2001) (unpublished) (The preamble of the *Larsen* claim recited only a hanger and a loop but the body of the claim positively recited a linear member. The court observed that the totality of all the limitations of the claim and their interaction

with each other must be considered to ascertain the inventor's contribution to the art. Upon review of the claim in its entirety, the court concluded that the claim at issue apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. 112 paragraph 2.). >See also *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366, 71 USPQ2d 1081, 1089 (Fed. Cir. 2004) ("The requirement to 'distinctly' claim means that the claim must have a meaning discernible to one of ordinary skill in the art when construed according to correct principles. Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite.").

Page 8, lines 4-8 of the present specification describes how data from data terminal equipment is processed by a relay function. As mentioned above, Figure 4 shows the functional elements of a data transfer process in a GSM system, including the data terminal equipment shown as a block designated "DTE." Page 8, line 26 through page 9, line 5, also describes how flow control is implemented in the data terminal equipment and further describes a flow control indication that signifies when flow control in the data terminal equipment is active or not.

The *Telecommunications Dictionary* available on line from Outside Plant Software at <http://www.outsideplantsoftware.com/telecommunications-glossary-a.asp> defines "Data Terminal Equipment (DTE)" as: Any device that can send data, receive data or perform both functions.

Newton's Telecom Dictionary, (CMP Books, 18th edition, 2002) defines "Data Terminal Equipment" as: A terminal device in the data world. DTE is part of a larger grouping of equipment known as CPE (customer premises equipment), which includes voice, as well as data, terminals. At the terminal end of a data transmission, DTE comprises the transmit and receive equipment.

Thus, it is clear that the phrase "data terminal equipment" has sufficient antecedent basis in the claims. The phrase "data terminal equipment" does not have to appear in the preamble of the claim. It is also clear that one skilled in the

art would easily understand what is being claimed when the claim is read in light of the specification, especially given the definitions of the term found in reference materials readily known to those skilled in the art. Still further, it clear that the elements of the claim are adequately supported by the specification.

.For a person skilled in the art it is definitely clear that data terminal equipment (DTE) is not necessarily a mobile terminal or a network element recited in claims 12 and 15, but it can be a separate device that can be an origin of a data flow it transmits and/or a terminating point for a data flow it receives.

For example, data terminal equipment can be a laptop computer connected to a mobile phone that provides a network connection for the laptop computer.

The term "data terminal equipment" has a well-established meaning for a person skilled to art. For example, Comer defines "data terminal equipment" as a term that is applied in ITU-T (International Telecommunication Union) protocol standards to computers and/or terminals to distinguish them from the network to which they connect (Comer, D. E., *Internetworking with TCP/IP*, Prentice-Hall International, Inc., 1995).

Thus, claims 12 and 15 are definite and satisfy the requirements of 35 USC 112, second paragraph

Rejection of claims 12, 15, and 17 under 35 USC 102(e) as being anticipated by Snowden et al. (US 5,974,032, "Snowden").

The Examiner's Answer states that independent claims 12 and 15 and dependent claim 17 lack novelty in light of Snowden.

An important question seems to be if an optimum bit rate indicator (ref. 460 in figure 6 of Snowden) can be seen to represent a status bit indicating whether flow control in data terminal equipment used to transmit a data unit is active or inactive.

Snowdon recites in col. 9, lines 37-39 that the optimum bit rate indicator 460 indicates which one of two bit rates is used for a remainder of a simplex time slot 443. The simplex time slot comprises a preamble 451, a unique word 452, and a burst type indicator 453. These parts of the simplex time slot are always sent using a lower (BPSK) bit rate. The remainder of the simplex time slot comprises either thirteen or twenty-six 32 bit words depending on the bit rate used for the remainder of the simplex time slot, see col. 9, lines 39-50 and figure 6.

Snowdon teaches that the optimum bit rate indicator 460 is used to indicate whether the remainder of the simplex time slot is line-coded using the lower bit rate (BPSK: one bit / symbol = 25 kbps) or using the higher bit rate (QPSK: two bits / symbol = 50 kbps). In other words, the optimum bit rate indicator 460 is used to indicate which one of the two bits rates is currently being used for the remainder of the simplex time slot 443.

Snowdon does not teach that the optimum bit rate indicator 460 is used to indicate whether a flow control in data terminal equipment is active or inactive, for example, to indicate whether the data terminal equipment buffers are full, and to prevent associated equipment from sending data until the condition clears. Snowdon also does not teach monitoring the optimum bit rate indicator 460 and requesting a change in a data rate if required, for example, to achieve a desired effect, e.g. to optimize throughput or to avoid buffer overflows.

Snowdon does not describe a solution in which the optimum bit rate indicator 460 would indicate whether data transmission equipment supports operation in which the bit rate that is currently used for the remainder of the simplex time slot can be changed for the next simplex time slots e.g. in order to optimize the throughput.

In the solution disclosed by Snowdon it is one of the starting point assumptions that the data transmission equipment supports operation in which the bit rate that is currently used for the remainder of the simplex time slot can be changed for the following simplex time slots in order to optimize the throughput. In other words, it is a starting point assumption that the flow control is active.

It is a different thing to indicate the bit rate (higher or lower) currently used for the remainder of a simplex time slot than to indicate whether data transmission equipment supports operation in which the bit rate that is currently used for the remainder of the simplex time slot can be changed for the following simplex time slots in order to optimize the throughput.

The solution recited in the independent claims 12 and 15 of the present application is designed for data communication systems in which the above-mentioned assumption is not necessarily valid. That is why the solution recited in claims 12 and 15 includes a status bit indicating whether flow control in data terminal equipment is active or inactive and analyzing (circuitry for analyzing) said status bit.

In summary, Snowden's optimum bit rate indicator indicates which bit rate was used for a portion of a time slot, while Applicants' status bit indicates whether flow control is active in the data terminal equipment.

Rejection of claims 13, 14, 16 and 18 under 35 USC 103 (a) as being unpatentable over the combination of Snowden and Suzuki (US 6,044,067).

The examiner uses a combination of the prior art publication Snowden and the prior art publication Suzuki (US 6 044 067) as a basis for rejecting dependent claims 13, 14, 16, and 18.

Also in the solution disclosed by Suzuki it is one of the starting point assumptions that a first apparatus and a second apparatus (or station) support operation in which the bit rate that is currently used between the first apparatus and the second apparatus (or the station) can be lowered (changed). In other words, it is a starting point assumption that the flow control is active.

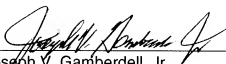
The solution recited in the independent claims 12 and 15 of the present application is designed for data communication systems in which the above-

mentioned assumption is not necessarily valid. The dependent claims should be allowable along with the independent ones.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

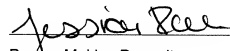

Joseph V. Gamberdell, Jr.
Reg. No. 44,695

29 November 2006
Date

Perman & Green, LLP
425 Post Road
Fairfield, CT 06824
(203) 259-1800
Customer No.: 2512

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